Title (en)

DEVICE AND METHOD FOR CONTROLLING A TWO-CYLINDER THICK MATTER PUMP

Title (de)

VORRICHTUNG UND VERFAHREN ZUR STEUERUNG EINER ZWEIZYLINDER-DICKSTOFFPUMPE

Title (fr)

DISPOSITIF ET PROCEDE DE COMMANDE D UNE POMPE A PATES A DEUX CYLINDRES

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Abstract (en)

[origin: WO2005093252A1] The invention relates to a device and a method for controlling a two-cylinder thick matter pump comprising delivery pistons that are actuated in a push-pull manner by means of a hydraulic reversing pump (6) and hydraulic drive cylinders controlled by said pump. For each pressure stroke, the delivery cylinders (50, 50') are connected to a delivery line (58) by means of a pipe junction (56). At the end of each delivery stroke in the delivery cylinders (50, 50'), a reversal process of the pipe junction (56) and the reversing pump (6) is triggered. The aim of the invention is to ensure a reliable operation of the pump, even in the event of a breakdown of switching and pressure sensors (20, 22, 24). To this end, during the calibration of the concrete pump and/or during the operation of the pump, the expected length of the stroke of the pistons (8, 8') in the drive cylinders (5, 5') is measured and recorded, the stroke time of each delivery stroke is monitored and compared with the expected stroke duration, and the reversing pump (6) is respectively pivoted, reversing the flow, and/or the pipe junction (56) is reversed when the stroke time exceeds the expected stroke duration by a pre-determined value. The output signals of a pressure sensor (24) connected to the reversing pump (6) or cylinder switching sensors (20, 20') arranged on the working cylinders can also be evaluated in order to trigger a reversal process.

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